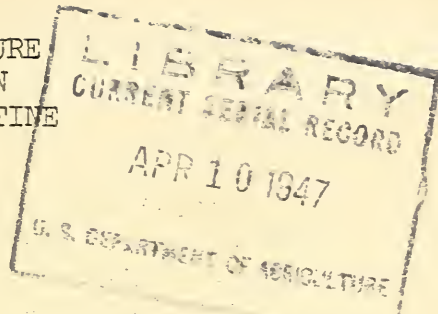


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STATUS OF THE EUROPEAN CORN BORER IN 1946

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Distribution

In 1946 the known distribution of the European corn borer was extended by 45 counties in 8 States. Most of the counties found to be infested in 1946 were outside the infestation border as known in 1945, which indicates that the borer is still moving westward and southward. The distribution of the borer and counties known to be infested in 1945 and the counties reported infested in 1946 are shown on map 1.

Both North and South Dakota reported infestations for the first time, which brings the total number of States having infestations to 28. The finding of borers in Traill County of North Dakota is of particular interest, for it is an isolated infestation, a considerable distance from the border of the continuous infested region. Kentucky reported 17 counties infested for the first time, the largest number of any State. In Minnesota 9 counties were found to be infested, indicating that the borer is spreading as rapidly to the northwest as it is to the south of the known

^{1/} The data presented in this report were assembled and tabulated at the European Corn Borer Research Laboratory, Toledo, Ohio, Wm. G. Bradley in charge. The field data were obtained by the Bureau of Entomology and Plant Quarantine and State agencies, or by the two in cooperation. Those State agencies which contributed data and assistance were as follows: Illinois Natural History Survey; Indiana State Department of Conservation; Entomological Commission of Kansas; State Departments of Agriculture of Maine, Maryland, Minnesota, New Jersey, New York, North Carolina, Pennsylvania, Vermont, Virginia, and Wisconsin; State Agricultural Experiment Stations of Connecticut, Delaware, Iowa, Kentucky, Massachusetts (Waltham), Missouri, Nebraska, New Hampshire, New York (Geneva), North Dakota, Ohio, South Dakota, and the Virginia Truck Experiment Station.

infested area. The 3 counties along the southeastern border of South Dakota and 6 counties near the eastern border of Nebraska were found to be infested in 1946. In Missouri 5 counties were added to the list of those known to be infested. Four of the newly infested counties are in the north central part of the State and one is in the southeastern section along the Mississippi River.

Of the Eastern States Virginia and Maryland reported new county infestations. The 3 newly infested counties in Virginia were in the north central part, and a county in the Panhandle of Maryland was added to the list.

The States and counties from which infestations were reported for the first time in 1946 are listed below. Abundance surveys were made in only a few of these counties.

Kentucky:	Maryland:	Nebraska:
Adair	Allegany	Cuming
Bath		Dodge
Bourbon	Minnesota:	Nemaha
Boyle	Chippewa	Richardson
Caldwell	Chisago	Sarpy
Casey	Jackson	Washington
Edmonson	Kandiyohi	
Gallatin	Lac qui Parle	North Dakota:
Grant	Stearns	Traill
Green	Todd	
Metcalfe	Washington	South Dakota:
Monroe	Yellow Medicine	Lincoln
Montgomery		Minnehaha
Nicholas	Missouri:	Union
Owen	Chariton	Virginia:
Robertson	Grundy	Albermarle
Taylor	Linn	Augusta
	Livingston	Rockingham
	New Madrid	

Abundance

The Bureau of Entomology and Plant Quarantine of the United States Department of Agriculture and various State agencies cooperated during the late summer and early fall of 1946 in determining the abundance of the European corn borer in a large part of the known infested area. Sample counts were made in 446 counties in 22 States. The standard procedure for examining 25 consecutive plants for infestation and dissecting 2 infested plants to determine borers per plant in each of 10 fields per county, was followed by the Bureau and most State observers. In Delaware 20 fields were examined in each of the 3 counties, but the standard procedure was used in each sample field. More fields per county, 100 plants in each, and 10

infested plants were reported by the Maine observers. In Pennsylvania 100 plants were examined and 5 were dissected, but the standard number of 10 fields was observed per county. In some other States fewer than 10 fields were observed per county, and some States combined 2 small adjoining counties and followed the standard procedure in sampling the 2-county unit. From the data taken the number of borers per 100 plants was calculated for each sample field, and the average of these samples for each county forms the basis for determining the borer-population trends in 1946. These data are presented for each State in summary form in table 1 and for each State by counties in table 2. The area surveyed and the abundance of the borer in corn in 1946 are shown on map 2.

The survey in the 13 eastern States indicated that the borer decreased in abundance in 6, namely--Connecticut, Delaware, Maine, Massachusetts, New York, and Pennsylvania. Nonsignificant decreases were observed in Maryland, New Hampshire, New Jersey, Rhode Island, Vermont, and Virginia. A significant increase occurred in the 3 counties surveyed in North Carolina.

The State average for all counties surveyed was less than 100 borers per 100 plants in all eastern States except New Jersey and Rhode Island. Although the average of the 19 counties surveyed in Maryland in 1946 was below 100, the average for the 12 comparable counties which were surveyed the last 2 years in that State exceeded 100 borers per 100 plants but was 44.1 borers less than in 1945.

In Maine, Vermont, and Connecticut, and with one exception in New Hampshire, no county exceeded 50 borers per 100 plants. The decrease in population was greatest in Connecticut. No county in New York State exceeded 50 borers per 100 plants except Nassau and Suffolk on Long Island, and populations for both of these were much lower than in 1945.

The 4 counties surveyed in Massachusetts averaged less than 100 borers per 100 plants, although the observed population in 1, Franklin County, indicated a significant increase.

A group of contiguous counties in Pennsylvania, New Jersey, and Maryland had populations which exceeded 100 borers per 100 plants. Franklin County in Pennsylvania exceeded 300. The greatest fluctuation between counties seemed to occur in Pennsylvania. The State average showed a decided decrease in 1946 compared with 1945 for a total of 9 counties; however, Allegheny, Armstrong, Cumberland, Franklin, Indiana, Juniata, Snyder, and Westmoreland had significant increases in populations. Surveys in the remainder of the counties indicated a decrease or nonsignificant change had taken place in the population in 1946.

In New Jersey only 1 county, Bergen, had a population which exceeded 200 borers per 100 plants. The average population in

that county showed a significant increase of 207.4 borers over that of 1945. Eight counties averaged more than 100 borers per plant, and only 1 county of these showed a significant increase over 1945. In the remainder of the counties a decrease or no significant change in the population was indicated.

Three counties--Baltimore, Carroll, and Worcester--in Maryland had populations greater than 200 borers per 100 plants. The 1946 populations in these 3 counties were higher than in 1945 but not high enough to be considered significant. Dorchester, Howard, Montgomery, and Washington Counties had populations greater than 100 but less than 200 borers per 100 plants, and in the remainder of the counties the populations were less than 100.

In Delaware the two northern counties, New Castle and Kent, had populations averaging less than 100 borers per 100 plants, and although Sussex County averaged more than 100, there was a decrease in average population for all 3 counties.

The survey in 3 counties in North Carolina, Camden, Currituck, and Pasquotank, indicated a phenomenal increase in the borer population had taken place.

Surveys were conducted in 9 States in the western part of the infested territory, and of these only Iowa and Minnesota had significant increases in borer populations. All others had significant decreases. None of the States in this group averaged more than 100 borers per 100 plants, and only 2, Illinois and Iowa, had averages greater than 50 borers per 100 plants.

None of the counties sampled in Michigan and Ohio, and in Indiana with the exception of Whitley County, had more than 100 borers per 100 plants. In Michigan none of the 6 counties surveyed had populations which exceeded 50 borers per 100 plants and in Ohio only 4 of 30 counties--Hancock, Pickaway, Putnam, and Wood--exceeded the latter population.

The Indiana survey, which perhaps was the most extensive of all, included 70 of the 92 counties in the State. There were only 4 counties among the 70 surveyed which had populations higher than in 1945, and none of these increases were considered significant. With the exception of 17 counties in Indiana, 14 of which are in the northern one-third of the State, all counties averaged less than 50 borers per 100 plants.

In Kentucky, in the 2 counties surveyed in both years, there was a decrease in the borer population in 1946. However, surveys in other counties indicate that the infestation has reached important proportions in the State. In the 9 counties surveyed the population exceeded 100 borers per 100 plants in 2--Bourbon and Fayette--and exceeded 50 borers in 2 other counties.

The population of borers in Wisconsin increased, but not significantly, in 6 counties and decreased in all others included in the survey. One county, Ozaukee, averaged more than 100 borers per 100 plants, and 9 others exceeded 50 borers per 100 plants.

Minnesota was 1 of the 2 Western States which had a significant increase in borer population. The populations of 1.9 and 8.6 borers per 100 plants in 1945 and 1946, respectively, are both low, but the data indicate that the borer has made an important increase in numbers in the past year. A total of 22 counties were surveyed in 1946, and none averaged more than 50 borers per 100 plants.

In Illinois the borer population followed the same trend as in most States and decreased in comparison with 1945. An increase was observed in 8 counties--Hancock, Henderson, Jasper, Jo Daviess, LaSalle, McDonough, Will, and Winnebago--but the increase was large enough to approach significance in Hancock County only. The population in DeKalb County was 324.8 borers per 100 plants, which approximated the population recorded in 1945. In 5 other counties--Jo Daviess, LaSalle, Ogle, Whiteside, and Winnebago--the population exceeded 200 borers per 100 plants, and in 5 additional counties exceeded 100 borers per 100 plants. The heaviest populations were observed in the northwestern part of Illinois. The population decreased gradually in a southeasterly direction from Jo Daviess County.

The high populations prevailing in northwestern Illinois are also present in east-central Iowa. In Iowa an increase was indicated in 1946 in all counties but 3--Henry, Howard, and Mashaska--that were surveyed in 1945. The increase in comparable counties for the State was almost 100 percent. In 1 county, Black Hawk, the population exceeded 300 borers per 100 plants, and in 4 others exceeded 200 borers per 100 plants. The population was between 100 and 200 borers per 100 plants in 11 counties.

In those counties surveyed in Missouri in which 8 fields or more were sampled in 1945 and 1946, only 2--Marion and Ralls--indicated an increase, and of all those surveyed only 1 exceeded 25 borers per 100 plants.

The European corn borer increased in 1946 in Iowa, Minnesota, and North Carolina, and decreased in all other States included in the survey. The 1946 growing season was favorable for corn, and a record crop was produced in most sections of the Corn Belt. In general conditions were favorable for borer development in most sections in May and June, and pupation and emergence were slightly ahead of 1945. June was about normal, and July and August were cool and dry except along some sections of the Atlantic coast where excessive rain fell in August. The conditions prevailing during August retarded development of the second generation of the borer by affecting oviposition, hatch, and probably survival. It is

believed that the late development of the second generation resulted in a low population of borers in all parts of the infested area east of the Indiana-Illinois line. In Iowa and Minnesota and northwestern Illinois, where weather conditions were more nearly normal, the depressing effect of the prevailing conditions was not noticeable.

Table 1.--Summary by States of European corn borer abundance in corn, fall of 1946 and comparisons with data for 1945

State	1945		1946		Counties surveyed both years			
	Number of counties surveyed	Average number of borers per 100 plants	Number of counties surveyed	Average number of borers per 100 plants	Number of Counties	Borers per 100 plants		Significant change
						1945	1946	
Connecticut	8	145.0	8	9.3	8	145.0	9.3	Decrease
Delaware	3	90.9	3	62.3	3	90.9	62.3	"
Illinois	34	148.6	37	89.6	34	148.6	94.0	"
Indiana	69	130.0	70	31.4	69	130.0	31.7	"
Iowa	35	50.2	58	77.1	34	48.4	94.8	Increase
Kentucky	3	27.0	9	53.9	2	38.9	5.0	Decrease
Maine	14	56.9	9	22.1	9	64.8	22.1	"
Maryland	14	167.3	19	95.0	12	168.2	124.1	None
Massachusetts	4	180.7	4	87.1	4	180.7	87.1	Decrease
Michigan	6	52.6	6	4.9	6	52.6	4.9	"
Minnesota	16	1.9	22	9.3	16	1.9	8.6	Increase
Missouri	12	10.4	18	7.9	5	18.1	13.6	Decrease
New Hampshire	9	29.1	9	26.0	9	29.1	26.0	None
New Jersey	19	118.2	20	104.7	19	118.2	104.7	None
New York	20	126.2	20	32.0	20	126.2	32.0	Decrease
North Carolina	3	3.5	3	97.9	3	3.5	97.9	Increase
Ohio	30	79.8	30	21.4	30	79.8	21.4	Decrease
Pennsylvania	33	142.7	32	85.1	31	151.9	87.7	"
Rhode Island	1	351.6	1	181.4	1	351.6	181.4	None
Vermont	11	23.2	11	16.9	11	21.1	16.9	None
Virginia	14	89.3	14	58.5	14	89.3	58.5	None
Wisconsin	40	70.9	43	32.5	42	72.9	34.0	Decrease
Total or average	398	96.6	446	50.7	382	99.7	53.3	Decrease

Table 2.--European corn borer abundance in corn, fall of 1946, and comparisons with data for 1945

State and County	Average number of borers per 100 plants		State and County	Average number of borers per 100 plants	
	1945	1946		1945	1946
Connecticut:			Illinois (Cont'd)		
Fairfield	108.4	14.4	Madison	-	10.2
Hartford	200.0	16.4	McDonough	44.2	53.6
Litchfield	53.6	1.6	McLean	275.2	44.2
Middlesex	145.0	8.0	Mercer	114.2	78.2
New Haven	389.0	13.6	Moultrie	71.2	1.2
New London	131.4	3.6	Ogle	414.8	273.6
Tolland	63.2	2.0	Peoria	148.2	49.8
Windham	69.4	14.6	St. Clair	-	17.4
			Sangamon	37.2	22.2
Average, 8 counties	145.0	9.3	Vermilion	188.2	14.2
			Whiteside	307.6	269.6
Delaware:			Will	83.2	90.4
Kent	77.8	39.5	Winnebago	245.8	258.6
New Castle	66.4	34.7	Woodford	210.2	91.8
Sussex	128.6	112.7			
			Average:		
Average, 3 counties	90.9	62.3	34 counties	148.6	94.0
			36 (37 counties)	-	89.6
Illinois:			Indiana:		
Adams	29.4	12.4	Adams	165.0	36.2
Boone	363.2	101.0	Allen	195.8	51.6
Brown-Cass	38.4	11.6	Bartholomew	69.6	15.4
Bureau	298.8	191.6	Benton	186.2	52.6
Champaign	105.8	19.0	Blackford	129.0	4.8
Christian	85.6	16.4	Boone	133.4	9.6
Clark	13.8	7.0	Carroll	117.2	44.8
DeKalb	330.2	324.8	Cass	78.4	31.2
DuPage	140.8	84.4	Clay	26.8	3.2
Hancock	17.2	69.4	Clinton	108.8	36.0
Henderson	72.8	133.2	Dearborn	108.4	2.4
Iroquois	96.6	54.2	Decatur	238.0	10.8
Jasper	1.0	5.0	DeKalb	132.0	43.8
Jo Daviess	179.2	275.4	Delaware	102.4	17.0
Kankakee	133.0	31.8	Elkhart	170.8	52.6
Knox	86.2	49.2	Fayette	212.6	3.8
Lake	122.8	113.4	Fountain	22.8	30.2
LaSalle	232.0	285.6	Franklin	127.8	4.4
Lawrence	7.6	3.0	Fulton	187.2	77.6
Livingston	363.4	137.2	Gibson	22.4	3.8
Logan	151.0	11.4	Grant	219.2	31.4
Macon	42.0	12.4			

Table 2.-- (Continued)

State and county	Average number of borers per 100 plants		State and County	Average number of borers per 100 plants	
	1945	1946		1945	1946
Indiana (Continued)			Indiana (Continued)		
Hamilton	83.2	12.4	Wabash	239.8	29.0
Hancock	60.2	8.4	Warren	357.0	89.2
Hendricks	26.8	22.4	Wayne	87.8	9.4
Henry	132.8	8.6	Wells	184.6	17.6
Howard	24.0	47.4	White	370.0	47.2
Huntington	259.6	28.0	Whitley	231.0	100.2
Jasper	147.4	63.4			
Jay	55.8	16.6	Average:		
Jefferson	85.8	14.6	69 counties	130.0	31.7
Johnson	68.0	10.2	70 counties	-	31.4
Knox	85.0	12.0			
Kosciusko	252.2	74.6	Iowa:		
Lagrange	236.2	29.6	Adair	-	2.8
Lake	112.8	68.8	Allamakee	4.0	37.4
LaPorte	91.6	55.0	Appanoose	3.0	29.8
Madison	65.0	13.4	Audubon	-	5.6
Marion	54.2	12.4	Benton	110.8	210.0
Marshall	254.8	41.6	Black Hawk	-	312.8
Miami	57.8	33.0	Boone	-	12.4
Montgomery	33.8	24.2	Bremer	34.8	53.0
Newton	231.8	24.6	Buchanan	48.0	102.4
Noble	249.4	91.0	Buena Vista	-	5.6
Ohio	115.4	19.8	Calhoun	-	13.6
Owen	-	10.4	Carroll	-	20.6
Parke	59.4	53.4	Cedar	75.0	138.6
Porter	169.8	64.6	Clinton	77.6	191.4
Posey	37.6	5.6	Crawford	-	11.6
Pulaski	141.4	67.2	Dallas	10.0	30.4
Putnam	13.8	18.8	Decatur	-	7.2
Randolph	74.6	12.8	Des Moines	-	74.0
Ripley	61.4	8.8	Dubuque	46.0	47.2
Rush	148.0	8.2	Fayette	27.8	56.4
St. Joseph	106.2	82.2	Floyd	22.4	44.4
Shelby	91.0	10.4	Franklin	7.8	86.6
Starke	171.6	64.8	Greene	6.2	63.4
Steuben	147.8	41.4	Grundy	65.2	224.6
Sullivan	158.8	7.0	Guthrie	-	41.2
Switzerland	88.4	34.2	Hamilton	-	30.8
Tippecanoe	108.4	31.8	Hardin	-	96.0
Tipton	47.2	9.6	Harrison	-	23.6
Union	261.2	8.2	Henry	33.8	28.2
Vermillion	67.8	58.6	Howard	9.0	5.8
Vigo	8.4	12.0	Humboldt	-	40.0

Table 2.-- (Continued)

State and county	Average number of borers per 100 plants		State and County	Average number of borers per 100 plants	
	1945	1946		1945	1946
Iowa (Continued)			Kentucky (Continued)		
Iowa	102.6	-	Warren	-	13.5
Jackson	59.8	112.4			
Jasper	49.0	88.4	Average:		
Johnson	142.8	266.8	2 counties	38.9	5.0
Jones	90.4	194.2	3 counties	27.0	-
Keokuk	-	149.0	9 counties	-	53.9
Kossouth	-	35.4			
Lee	38.2	51.8	Maine:		
Linn	112.4	193.0	Androscoggin	82.3	18.5
Louisa	51.0	129.0	Cumberland	56.0	22.4
Lucas	7.2	29.4	Franklin	49.6	17.9
Mashaska	93.4	77.8	Hancock	9.9	-
Marshall	-	199.8	Kennebec	85.0	29.8
Monona	-	6.6	Knox	40.5	13.8
Muscatine	95.6	172.6	Lincoln	88.8	-
Polk	-	83.2	Oxford	71.5	11.3
Scott	90.2	111.4	Penobscot	29.4	-
Shelby	-	5.8	Piscataquis	37.7	-
Story	12.8	32.0	Sagadahoc	47.5	-
Tama	110.2	205.4	Somerset	66.4	16.1
Union	-	14.8	Waldo	52.9	21.1
Van Buren	12.4	28.8	York	78.8	48.1
Wapello	46.2	59.8			
Warren	27.0	36.4	Average:		
Washington	32.8	72.4	14 counties	56.9	-
Webster	-	37.6	9 counties	64.8	22.1
Worth	3.0	10.6			
Wright	-	22.7	Maryland:		
Average:			Allegany	-	6.3
35 counties	50.2	-	Anne Arundel	129.0	-
58 counties	-	77.1	Baltimore	263.6	281.8
34 counties	48.4	94.8	Calvert	-	27.6
			Carroll	251.8	286.8
Kentucky:			Caroline	-	76.0
Anderson	-	22.7	Cecil	195.2	-
Bourbon	-	139.4	Charles	53.5	3.4
Boyle	-	60.3	Dorchester	-	118.4
Fayette	-	151.9	Harford	276.6	68.7
Madison	-	14.7	Howard	232.8	164.2
Mason	28.6	4.4	Kent	-	12.4
Scott	-	73.0	Montgomery	267.8	139.0
Simpson	3.2	-	Prince Georges	161.1	23.4
Trimble	49.2	5.6	Queen Annes	-	24.2
			St. Marys	92.8	47.0

Table 2.-- (Continued)

State and County	Average number of borers per 100 plants		State and County	Average number of borers per 100 plants	
	1945	1946		1945	1946
Maryland (Continued)			Minnesota (Continued)		
Somerset	71.8	46.8	Olmsted	2.6	4.6
Talbot	-	50.6	Rice	0.	8.4
Washington	258.0	148.8	Scott	-	8.0
Wicomico	18.6	33.2	Steele	0.	5.4
Worcester	70.2	246.4	Wabasha	2.4	7.4
			Waseca	0.	3.2
Average:			Washington	-	0.4
14 counties	159.0	-	Watsonwan	-	3.8
19 counties	-	95.0	Winona	0.0	16.6
12 counties	168.2	124.1			
			Average:		
Massachusetts:			16 counties	1.9	8.6
Bristol	324.2	68.4	22 counties	-	9.3
Franklin	36.2	114.2			
Norfolk	232.4	87.0	Missouri:		
Plymouth	130.0	78.8	Andrew	-	0.
			Buchanan	0.	0.
Average, 4 counties	180.7	87.1	Carroll	-	3.3
			Charlton	-	3.0
Michigan:			Clark**	32.0	14.2
Lenawee	27.2	17.8	Grundy	-	2.3
Macomb	91.0	0.4	Holt	0.	0.
Monroe	87.6	2.2	Jackson	-	0.
St. Clair	50.6	2.6	Lewis**	37.8	14.2
Sanilac	16.8	1.0	Lincoln	2.5	-
Wayne	42.6	5.2	Linn	-	16.0
			Livingston	0.	10.3
Average, 6 counties	52.6	4.9	Macon	0.6	-
			Marion**	12.2	22.6
Minnesota:			Montgomery	-	2.3
Blue Earth	-	38.8	Perry	-	2.0
Brown	-	3.2	Pike	9.6	-
Dakota	1.2	4.8	Ralls**	1.2	10.2
Dodge	2.0	2.0	St. Charles**	7.5	7.0
Fairbault	0.4	5.8	St. Louis	21.6	30.4
Fillmore	5.0	4.0	Scotland	-	4.8
Freeborn	0.4	19.6			
Goodhue	3.6	17.2	Average:		
Houston	9.0	19.4	12 counties	10.4	-
LeSueur	3.0	13.0	18 counties	-	7.9
Martin	0.8	2.4	9 counties*	12.5	12.1
Mower	0.6	3.2	5 counties**	18.1	13.6
Nicollet	-	13.0			

Table 2.-- (Continued)

State and County	Average number of borers per 100 plants		State and County	Average number of borers per 100 plants	
	1945	1946		1945	1946
New Hampshire:			New York (Continued)		
Belknap	56.8	41.6	Nassau	752.8	227.6
Carroll	26.4	21.2	Niagara	66.0	9.4
Cheshire	49.6	52.6	Oneida	16.4	3.8
Grafton	26.2	11.4	Onondaga	16.4	23.4
Hillsboro	9.0	26.2	Ontario	7.4	10.0
Merrimack	23.2	9.8	Orange	60.8	5.2
Rockingham	9.6	23.8	Orleans	15.0	9.4
Strafford	28.2	16.2	Rensselaer	50.6	5.6
Sullivan	32.8	31.0	Saratoga	108.8	26.0
			Schenectady	31.8	0.4
Average, 9 counties	29.1	26.0	Suffolk	414.0	186.6
			Ulster	147.2	6.4
			Wayne	6.4	36.4
New Jersey:			Average, 20 counties	126.2	32.0
Atlantic	59.4	93.4	North Carolina:		
Bergen	34.4	241.8	Camden	5.4	152.4
Burlington	407.2	160.0	Currituck	4.8	94.0
Camden	141.6	84.6	Pasquotank	0.4	47.2
Cape May	187.2	86.2			
Cumberland	104.8	107.6	Average:		
Essex-Union	83.0	31.7	3 counties	3.5	97.9
Gloucester	266.6	178.2			
Hunterdon	77.6	71.6	Ohio:		
Mercer	129.8	196.0	Allen	18.0	25.0
Middlesex	107.6	163.6	Auglaize	163.0	0.4
Monmouth	102.7	184.4	Butler	105.6	14.0
Morris	29.2	11.4	Champaign	113.6	27.4
Ocean	85.8	71.4	Clark	176.4	37.8
Passaic	26.2	94.2	Darke	105.8	1.2
Salem	314.8	156.0	Defiance	48.0	20.6
Somerset	56.7	19.8	Fayette	40.2	24.6
Sussex	17.0	8.6	Franklin	64.0	32.8
Warren	14.4	23.8	Fulton	82.2	37.6
			Greene	128.2	4.4
Average, 19 (20 counties)	118.2	104.7	Hamilton	84.0	27.0
New York:			Hancock	29.4	66.2
Albany	150.8	6.8	Hardin	42.0	11.2
Columbia	378.4	12.0	Henry	71.8	7.0
Dutchess	33.8	14.0	Logan	76.4	0.8
Erie	91.4	39.2	Lucas	105.0	28.0
Greene	125.2	6.0	Madison	56.2	11.8
Livingston	11.0	4.6			
Monroe	39.6	7.0			

Table 2.-- (Continued)

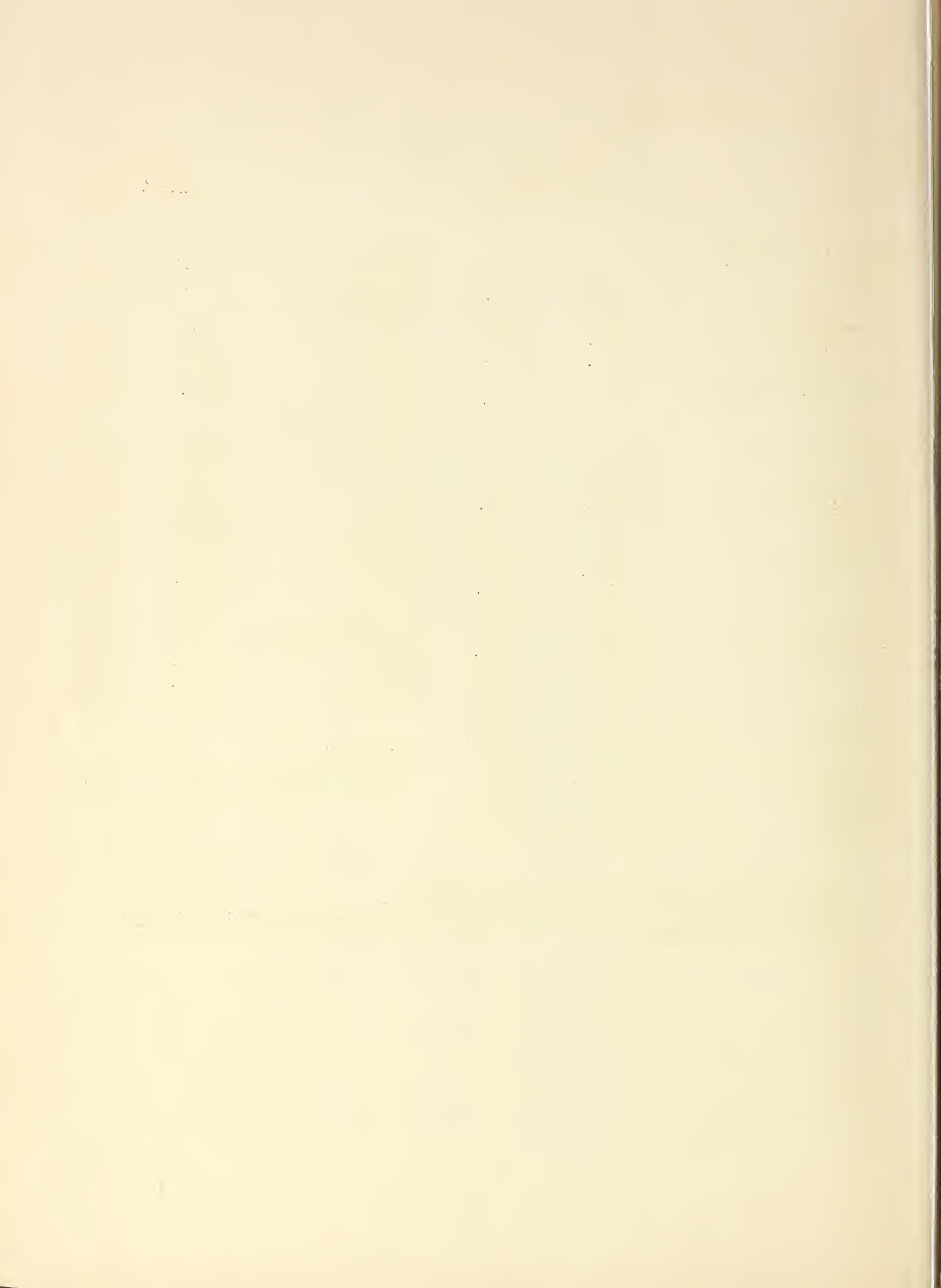
State and County	Average number of borers per 100 plants		State and County	Average number of borers per 100 plants	
	1945	1946		1945	1946
Ohio (Continued)			Pennsylvania (Continued)		
Mercer	121.8	3.4	Perry	67.4	33.8
Miami	135.4	0.	Philadelphia	726.3	67.9
Montgomery	190.0	2.0	Snyder	7.3	70.0
Ottawa	15.4	31.0	Somerset	0.	5.0
Paulding	17.4	7.4	Union	6.5	3.8
Pickaway	66.4	52.6	Westmoreland	1.1	10.7
Preble	105.0	3.8	York	263.7	216.9
Putnam	40.0	57.4			
Shelby	75.4	2.0	Average:		
Van Wert	50.2	34.0	33 counties	142.7	-
Williams	27.6	8.2	32 counties	-	85.1
Wood	40.2	64.0	31 counties	151.9	87.7
Average 30 counties	79.8	21.4			
Pennsylvania:			Rhode Island:		
Adams	102.3	155.8	Washington	351.6	181.4
Allegheny	3.1	18.7	Average, 1 county	351.6	181.4
Armstrong	2.9	4.7			
Bedford	0.	-	Vermont:		
Berks	266.4	118.3	Addison	21.4	8.6
Bucks	411.2	137.2	Bennington	12.8	37.0
Butler	3.0	3.6	Caledonia	11.0	4.8
Centre	24.8	37.5	Chittenden	30.7	23.4
Chester	520.3	160.0	Franklin	7.2	9.8
Crawford	22.4	8.3	Grand Isle	6.4	10.8
Cumberland	57.5	175.2	Orange	23.1	16.6
Dauphin	228.4	119.2	Rutland	37.6	23.4
Delaware	469.3	214.2	Washington	28.2	8.8
Erie	57.5	62.3	Windham	11.4	35.4
Franklin	7.9	309.9	Windsor	42.1	7.2
Fulton	0.	-	Average, 11 counties	21.1	16.9
Indiana	2.3	24.0			
Juniata	2.1	127.3	Virginia:		
Lancaster	298.1	133.9	Accomac	581.2	93.4
Lawrence	7.6	1.4	Clarke	7.2	41.2
Lebanon	301.4	67.5	Culpeper	0.	19.8
Lehigh	188.3	58.7	Fairfax	37.4	12.6
Luzerne	-	3.6	Fauquier	30.0	36.8
Lycoming	20.3	16.6	Frederick	0.	34.4
Mercer	26.6	22.9	Gloucester	4.4	10.0
Montgomery	420.3	280.4	Loudoun	161.8	145.0
Northampton	193.0	53.8	Nansemond	3.6	11.4

Table 2.-- (Continued)

State and County	Average number of borers per 100 plants		State and County	Average number of borers per 100 plants	
	1945	1946		1945	1946
Virginia (Continued)			Wisconsin (Continued)		
Norfolk	3.0	69.0	Manitowoc	71.8	34.6
Northampton	290.8	96.6	Marinette	74.3	30.5
Prince William	41.4	6.0	Marquette-		
Princess Anne	83.2	223.8	Green Lake	34.3	41.6
Westmoreland	5.6	18.6	Oconto	91.8	51.0
			Outagamie	216.8	41.4
Average, 14 counties	89.3	58.5	Ozaukee	189.0	101.0
Wisconsin:			Pierce	-	3.0
Adams	9.7	6.0	Portage	28.3	-
Brown	156.0	28.5	Richland	125.6	60.4
Buffalo-Pepin	16.4	5.6	Rock	14.2	31.6
Calumet	92.8	59.0	Sauk	26.2	28.0
Columbia	36.8	12.8	Shawano	114.2	4.3
Crawford	44.0	21.2	Sheboygan	150.2	35.8
Dane	72.3	50.6	Trempealeau	15.6	16.0
Dodge	60.4	21.8	Vernon	22.8	11.2
Door	113.6	16.2	Walworth	104.0	12.2
Fond du Lac	48.2	57.0	Washington	79.2	67.0
Grant	61.8	7.1	Waukesha-Milwaukee	33.2	31.8
Green	41.2	54.8	Waupaca	88.0	31.4
Iowa	63.2	22.0	Waushara	23.8	16.6
Jefferson	38.6	25.2	Winnebago	154.6	71.2
Juneau	24.8	16.0			
Kenosha-Racine	65.4	82.2	Average:		
Kewaunee	58.0	28.2	39 (43 counties)	71.8	33.2
LaCrosse	27.2	26.2	38 (42 counties)	72.9	34.0
LaFayette	112.0	35.2			

* Counties which were surveyed in both years.

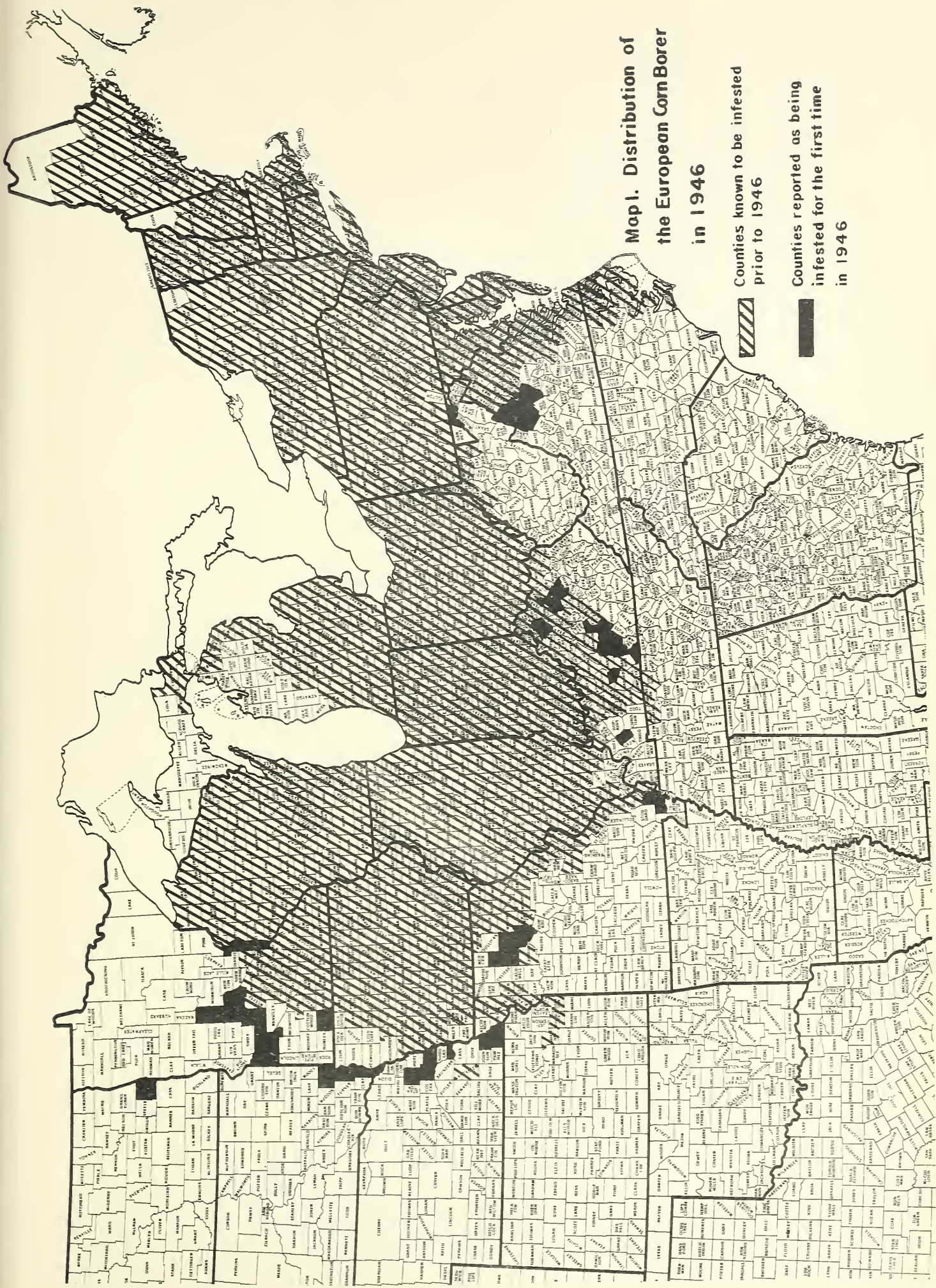
** Counties in which 8 or more counts were taken on both years and are, therefore, comparable.



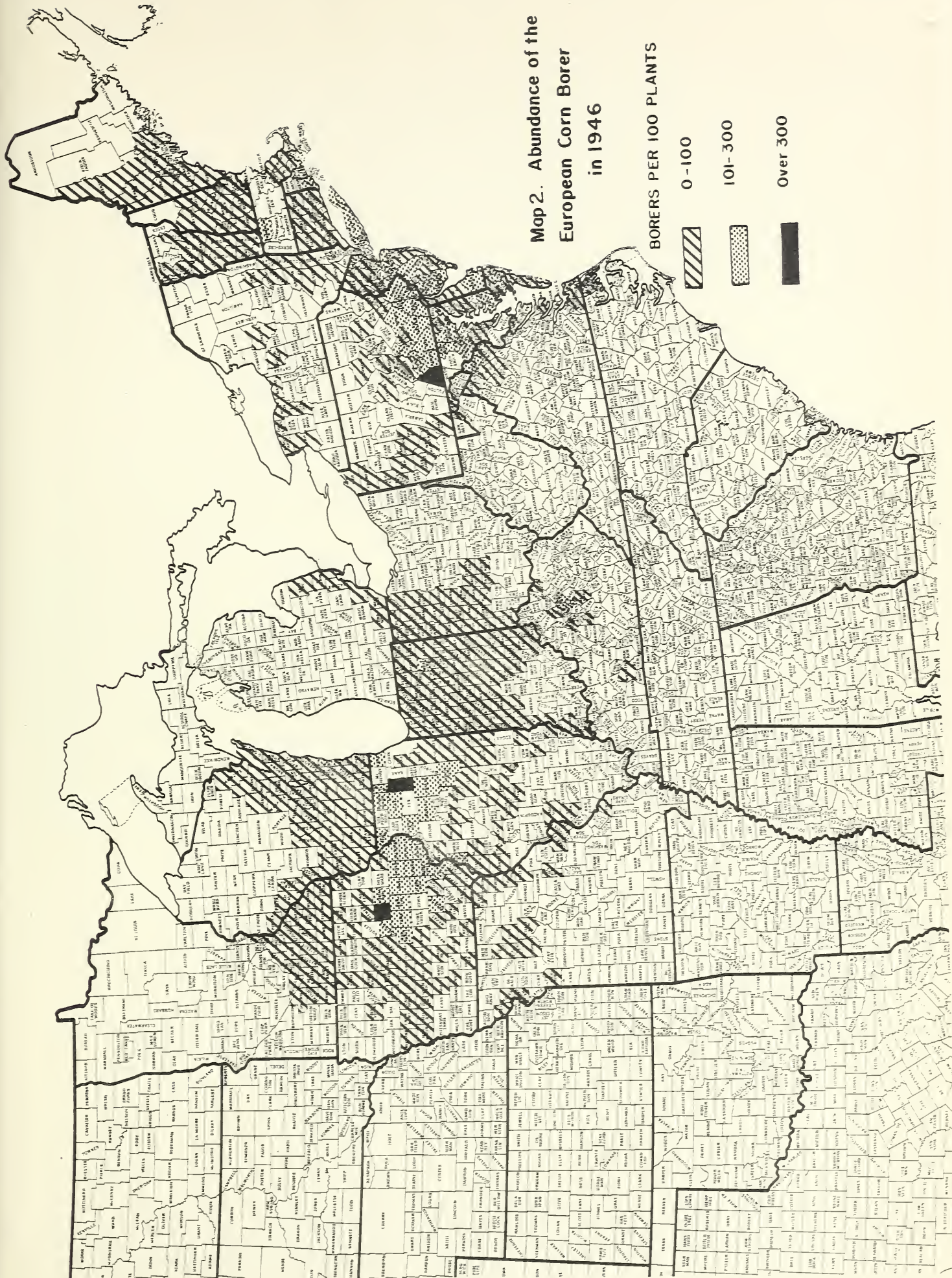
Map I. Distribution of the European Corn Borer in 1946

Countries known to be infested prior to 1946

Countries reported as being infested for the first time in 1946







Map 2. Abundance of the European Corn Borer in 1946

BORERS PER 100 PLANTS

0-100

101-300

Over 300

